



PATENT ABSTRACTS OF JAPAN

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OGASAWARA MUNEHIRO**(54) **ASTIGMATISM CORRECTION METHOD AND
ASTIGMATISM CORRECTION DEVICE**

(57) Abstract:

PROBLEM TO BE SOLVED: To make an astigmatism correction with high accuracy as well as easily, regarding a charged particle optical lens-barrel used for SEM(scanning electron microscope).

SOLUTION: Regarding the astigmatism correction method for a charged particle optical lens-barrel with stigmata to make a correction for astigmatism, the secondary particle signal obtainable via the two-dimensional scanning of an electron beam on a sample is extracted at a step S1. Then, the secondary particle signal is subjected to Fourier transformation in two-dimensional space and a power spectrum is calculated at a step S2. In addition, the binary coded image of the power spectrum is found at a step S3 and the principal axis of the binary coded image and an axis along a direction orthogonal therewith are found at a step S4. Also, a distance to a principal axis at each point in the binary coded image and another distance to an axis along the direction orthogonal with the principal axis are obtained to determine the intensity and direction of astigmatism at a step S5. At the same time, the stigmata are adjusted on the basis of the

intensity and the direction of the astigmatism.

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